

L 33170-65  
ACCESSION NR: AP5005216

figures.

ASSOCIATION: none

SUBMITTED: 06Apr64

NR REF SOV: 005

ENCL: 00

OTHER: 008

SUB CODE: 0P, E/M

Card 2/2

L 21712-66 EWT(1)/ETC(m)-6 IJP(c) VII  
 ACC NR: AP6004889 SOURCE CODE: UR/0057/66/036/001/0139/0146

AUTHOR: Tarantin, N. I.

ORG: none

21, 44, 54  
 TITLE: A magnetic spectrometer with field alterations

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 139-146

TOPIC TAGS: electron optics, mass spectrometry, magnetic analyzer, homogeneous magnetic field, nonhomogeneous magnetic field, magnetic field, spectrometer

ABSTRACT: The author discusses the dispersion and focusing qualities of magnetic particle spectrometers in which the otherwise uniform magnetic field is altered in intensity within limited regions, each bounded by four half-planes with a common edge parallel to the direction of the field. The field is assumed to be uniform within each region of altered field. The electron optics problem is treated in detail and equations are derived with the aid of which one can so determine the shapes and locations of the altered field regions and the magnitudes of the field alterations as to optimize the performance of the spectrometer. The dispersion of the altered field spectrometer is compared with that of a variable field spectrometer in which the magnetic field strength is proportional to  $R^{-n}$ , where  $R$  is the distance from the axis. The dispersion of a properly designed altered field spectrometer having  $n$  altered field regions is equal to that of a variable field spectrometer with  $n = (n^2 - 1)/n^2$ .

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L 21710-66

ACC NR: AP6004889

In a real spectrometer the magnetic field strength will not change discontinuously at the boundary of an altered field region but will vary continuously throughout a narrow region in the vicinity of the boundary plane. These transition regions do not significantly effect the optical properties of the instrument in the plane perpendicular to the magnetic field, but they provide axial focusing and with proper design can improve the performance of the spectrometer. It is concluded that the performance of an altered field spectrometer would be at least equal to that of the best contemporary variable field spectrometers, and that the altered field instrument is much simpler to construct since the required field alterations can be realized with the aid of relatively simple shims and cuts in the pole pieces. An error in a paper by N.G. Afanas'yev (Izv. AN SSSR, seriya fiz., 24, 1157, 1960) and a related error in a paper by the author and A.V.Demyanov (ZhTF, 35, 186, 1965) are corrected. Orig. art. has: 21 formulas and 3 figures.

SUB CODE: 20/

SUBM DATE: 17May65/

ORIG REF: 004

OTH REF: 007

Card 2/2

TARANTOV, A.S.; YERMOLAYEV, K.F.

Methods for studying the course of the movement of ore-forming  
solutions. Trudy Akad. Nauk Kazakh SSR 16:111-119 '63.  
(MIRA 17:10)

TARANTOV, S. N.

The impact of compressing methods upon the structure and mechanical properties of duralumin bars. Moskva, Gos. izd-vo aer. lit-ry, 1946. (Mic 23-276) Collection of the original as determined from the film: 20 p.

Microfilm TS-9

TARANTOV, S. N., Engineer

"Investigation of the Influence of Various Factors on the Process of Drawing Pipes From High-Strength Aluminum Alloys." Sub 3 Feb 47, Moscow Inst of Nonferrous Metals and Gold imeni M. I. Kalinin

Dissertations presented for degrees in science and engineering in Moscow in 1947.

SO: Sum. No. 457, 18 Apr 55

TARANTOV, S. N.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 603f - I

BOOK

Call No.: TL504.M63

Author: TARANTOV, S. N., Kand. of Tech. Sci.

Full Title: ~~CAUSES OF SURFACE DEFECTS IN EXTRUDED RODS OF ALUMINUM~~  
ALLOYS. In: Moscow Aviatsionnyi Tekhnologicheskii Institut. Trudy. Issue 4, 1948

Transliterated Title: O prichinakh poverkhnostnykh defektov na  
pressovannykh prutkakh iz alyuminiyevykh splavov

PUBLISHING DATA

Originating Agency: Moscow Aviation Technological Institute

Publishing House: State Publishing House of the Defense Industry  
(Oborongiz)

Date: 1948

No. pp.: 34 (83-116)

No. of copies: Not given

Editorial Staff

Ed.-in-Chief: Voronov, S. M., Prof., Doc. of Tech. Sci.

PURPOSE: For scientific workers in aviation technology and materials.

TEXT DATA

Coverage: The author discusses the inverted and direct methods of extrusion with and without lubrication of the container. He analyzes the formation on the surface of blisters, scales, cracks, etc.

Diagrams, photos, tables.

No. of References: 2 Russian (1936-1940)

Facilities: None

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TARANTOV, S.N., kandidat tekhnicheskikh nauk

Effect of bar plating on outflow pressure and structure of pressed  
aluminum alloy rods. Trudy MATI no.113-121 '54. (MLRA 8:11)  
(Aluminum alloys)



TARANTOV, S.N., kandidat tekhnicheskikh nauk. KUZIN, V.G., kandidat tekhnicheskikh nauk [deceased].

Structure of aluminum alloy pipes extruded trough mandrel dies. Trudy  
MATI no.28:17-25 '55. (MIRA 9:7)  
(Pipe) (Extrusion (Metals))

TARANTOV, S. N.

137-58-4-8388

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4. p 297 (USSR)

AUTHOR: Tarantov, S. N.

TITLE: ~~The Effect of Process Factors on the Structure and Mechanical Properties of AMg Alloy Tubing~~ (Vliyaniye tekhnologicheskikh faktorov na strukturu i mekhanicheskiye svoystva trub iz splava AMg)

PERIODICAL: Tr. Mosk. aviats. tekhnol. in-ta, 1956. Nr 30. pp 103-125

ABSTRACT: The results of an investigation of the effect of technological factors (degree of deformation on drawing, temperature and length of annealing period, rates of heating and cooling during anneal, etc.) on the strength and ductility of AMg alloy tubes, and also on the appearance of coarse crystalline structure on annealing, are presented. The effects of adding Cr were also investigated. It was shown that when the alloy contained 2.2-3% Mg and 0.31% added Mn, tubes made from extruded blanks acquired a fine-grained structure at levels of deformation of not less than 25% after annealing with slow heating at 375-450°C for 0.5-1.0 hour. Regardless of the method of extrusion of the intermediate blank, such tubes show a  $\sigma_b$  of 18.0-22.6 kg/mm<sup>2</sup>

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137-58-4-8388

The Effect of Process Factors (cont.)

and  $\delta$  of 19.5-22%. Fine granular structure is not necessarily accompanied by low  $\sigma_b$  or high  $\delta$  values, as highly-deformed tubes show low  $\sigma_b$  and high  $\delta$ , particularly when grain structure is coarse. It is noted that the following limits of fluctuation of mechanical properties may be accepted for tubing of AMg alloy of the highest stability of structure and mechanical properties after anneal (at 2.2-3.0% Mg and 0.2-0.3% addition of Mn or Cr  $\sigma_b$  17.5-23 kg/mm<sup>2</sup> and  $\delta > 18\%$ ). The specifications should be modified to conform with these data. It is also shown that an addition of 0.30% Mn or 0.26% Cr in the annealing of tubing with different degrees of deformation at 375-500° results in practically identical mechanical properties and a tube structure that satisfies the specifications. If anneal is at 550°, an alloy of AMg with added Cr is less inclined to undergo coarse recrystallization and requires longer heating to attain a coarse crystalline structure than is the case with the same alloy with Mn added.

M. Z.

1. Magnesium alloy tubing--Processing effects
2. Magnesium alloy tubing--Mechanical properties
3. Magnesium alloy tubing--Structural analysis

Card 2/2

~~TARANTOV, S.N.~~, kandidat tekhnicheskikh nauk; KUZIN, V.G., kandidat tekhnicheskikh nauk [deceased].

Structure of forged bar rims made of AMg alloy. Trudy MATI no.30:  
126-134 '56. (MLBA 10:2)

(Aluminum alloys--Metallography)

TARANTOV, S. N. AND KUZIN, V. G.

"Rolling mill Tube Blanks Extruded Through Tongue Dies"

Light Alloys. no. 1: Physical Metallurgy, Heat Treatment, Casting, and Forming;  
Principal Reports of the Conference, Moscow, Izd-vo AN SSSR, 1958, 497 P.

(2nd. A.U. Conf. on Light Alloys 1955)

SOV/137-58-9-19106

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 139 (USSR)

AUTHORS: Tarantov, S.N., Kuzin, V.G.

TITLE: Tubular Blanks for Rolling Mills Extruded Through Reel Dies  
(Trubnyye zagotovki dlya prokatnykh stanov, pressovannyye  
cherez yazychkovyye matritsy)

PERIODICAL: V sb.: Legkiye splavy. Nr 1. Moscow, 1958, pp 472-484

ABSTRACT: Four grades of mass production Al alloys and one grade of Al are extruded through reeling dies. Different ingot temperatures and rates of outflow were employed. An evaluation of the quality of the seams in the tubular blank was made by means of the extrusion residues. The strength of the tubular seams was measured under various conditions and by various methods and showed that the strength of seamless and seam-type tubes (T) was virtually identical. The mechanical properties and variations in wall thickness of the blanks, and of the resultant tubes, were measured. The investigation showed that it is possible to manufacture tubing from stock extruded through reeling dies with subsequent rolling or drawing under appropriate conditions and schedules. The use of such blank stock increases the yield

Card 1/2

SOV/137-58-9-19106

Tubular Blanks for Rolling Mills Extruded Through Reel Dies

of satisfactory T by reducing the waste in various intermediate operations.

Ye.M.

1. Aluminum alloys--Extrusion    2. Dies--Performance    3. Aluminum tubes--Mechanical properties

Card 2/2

TARANTOV, S. N.

PHASE I BOOK EXPLOITATION

SOV/4256

SOV/10-8-44

Moscow. Aviatsionnyy tekhnologicheskiy institut

Voprosy obrabotki davleniyem legkikh splavov (Problems of Pressworking Light-Metal Alloys) Moscow, Oborongiz, 1960. 53 p. (Series: Its: Trudy, vyp. 44) 3,600 copies printed.

Sponsoring Agency: RSFSR. Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya.

Ed. (Title page): V. M. Aristov, Candidate of Technical Sciences; Ed. (Inside book): T. M. Kunyavskaya; Tech. Ed.: V. I. Oreshkina; Managing Ed.: A. S. Zaymovskaya, Engineer.

PURPOSE: The book is intended for scientific workers and technical personnel in machine-building and for senior students of related departments.

COVERAGE: The collection of articles is concerned with problems of pressworking (rolling, extrusion, die-forming) of light-metal alloys.

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Problems of Pressworking Light-Metal (Cont.)

SOV/4256

Results are presented of investigations performed to improve the process of manufacturing aluminum and aluminum-alloy sheets, and to improve the formability of aluminum-magnesium alloys. Also explained is the effect of the configuration of the extruded shape on the "extrusion effect" (longitudinal work-hardening) of the D 16 and AB alloys. Determination of power consumption in extrusion of shapes and the possibility of cold volumetric deformation of the AK6 alloy are discussed. No personalities are mentioned. There are 6 Soviet references following Engineer Tsipulin's article.

TABLE OF CONTENTS:

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Ivanov, I. I., and A. I. Kolpashnikov, Candidates of Technical Sciences. Deformation of Large-Size Aluminum Ingots by Rolling	5
<u>Tarantov, S. N.</u> , Candidate of Technical Sciences. Effect of the Configuration of the Shapes on Extrusion Effect in the D16 and AV Alloys	13
Tsipulin, I. P., Engineer. Cold Volumetric Deformation of the AK 6 Alloy	19
<u>Tarantov, S. N.</u> , Candidate of Technical Sciences. Power Consumption for Extrusion of Shapes	30

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Problems of Pressworking Light-Metal (Cont.)

SOV/4256

Kolpashnikov, A. I., Candidate of Technical Sciences, and V. D. Korolev,  
Engineer. Certain Problems in Manufacturing Aluminum Alloy Sheets 39

Bobrov, N. N., Aspirant. Formability of Aluminum-Magnesium Alloys 47

AVAILABLE: Library of Congress

VK/ra/fal  
5/29/60

Card 3/3

TARANTOV, S.M., kand.tekhn.nauk

Influence of section shape on the effect of pressure on D16  
and AB alloys. Trudy MATI no.44:13-18 '60. (MIRA 13:6)

(Forging) (Aluminum alloys)

TARANTOV, S.N., kand.tekhn.nauk

Energy consumed in the press forging of sections. Trudy MATI  
no.44:30-38 '60. (MIRA 13:6)  
(Forging) (Power presses)

L 15636-66 EWT(1)/EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(a)/EWP(b) I:P(o) NJW/JD/HW  
ACC NR: AT5027924 SOURCE CODE: UR/2536/65/000/062/0135/01457

AUTHOR: Tarantov, S. N. (Candidate of technical sciences)

ORG: Moscow Aviation Technology Institute (Moskovskiy aviatsionnyy tekhnologicheskii institut)

TITLE: Heating temperature of the press container during the pressing of aluminum alloy shapes

SOURCE: Moscow. Aviatsionnyy tekhnologicheskii institut. Trudy, no. 62, 1965. Obrabotka davleniyem legkikh splavov (Pressure working of light alloys), 135-144

TOPIC TAGS: press container, hot forging, aluminum alloy, temperature dependence, metal forming press, thermomechanical property

ABSTRACT: Al-alloy shapes and rods were experimentally pressed in a 750-ton horizontal hydraulic press within a container equipped with an induction heater and thermocouples for temperature control. Successive pressing of four groups of ingots of D16 alloy into rectangular strips with a cross-sectional area of 5x35 mm with surface temperature of 420-417°C revealed a distinct and regular pattern of variation in the interior temperature of the container: this temperature increased each time a successive blank was pressed and decreased each time the press was idled during the intervals between one group of blanks and another but ultimately the thermomechanical regime of pressing became stabilized (Fig. 1). The decrease in container temperature

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UDC: 669.882:621.97.07

I. 15636-66

ACC NR: AT5027924

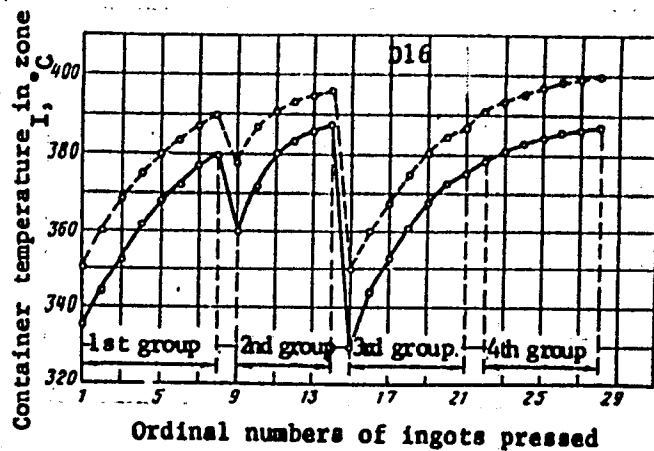


Fig. 1. Container Temperature during the pressing of strips of D16 alloy (5x35 mm) from ingots of D16 alloy

○ — ○ - at commencement of pressing; ○ - - - ○ - at end of pressing

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L 15-11-1

ACC NR: AT5027924

perature during the idling of the press and hence also the actual container temperature at the instant of the pressing of the first blank in the succeeding group depends on the duration of idling, the temperature of the ambient air, and other factors. Container temperature affects markedly the deforming squeeze of the press: as this temperature increases, the squeeze decreases, and vice versa. In addition, container temperature affects the mechanical properties (ultimate strength, yield, relative elongation after hardening and aging) of the pressed blanks: since the blanks were pressed successively one after another, the only cause of the difference in their mechanical properties could be the temperature difference of the container, which affected the mechanism of deformation of the blank. And indeed this was observed for the pressing of ingots of D16 alloy, particularly when the container temperature during the pressing of the last ingot was close to the temperature of that ingot whereas the container temperature in the same zone during the pressing of the first ingot differed from it by 60°C and more. Thus, as the container temperature decreases, the strength indicators also decrease. This shortcoming may be offset by increasing the pressure exerted on the dummy block and by regulating the heating temperature of the container close to its internal surface in the zone adjoining the area of deformation of the ingot. Orig. art. has: 4 figures, 2 tables.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

TS  
Card 3/3

TARANTOV, Ye. A.

24-11-27/31

**AUTHORS:** Vasil'yev, L. A., Semenov, S. S. and Tarantov, Ye. A. (Moscow)

**TITLE:** Study of the physical processes inside a shock tube by means of high speed photography. (Izucheniye fizicheskikh protsessov v udarnoy trube pri pomoshchi vysokoskorostnogo fotografirovaniya).

**PERIODICAL:** Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No. 11, pp. 186-188 + 2 plates.

**ABSTRACT:** Hertzberg (Ref. 2) has investigated shock waves by means of a film camera with a filming speed of 13 000 frames per second. This speed is too low for detailed investigation of the process since numerous details are blurred and neither the main shock wave nor their contact surface can be observed on the thus produced exposures. In the here described experiments, a set-up was used which enables a filming speed of 100 000 frames per second, a sketch of which is shown in Fig. 1, p. 186; thus, it was possible to obtain a complete picture of the flow around the model for each 10  $\mu$  secs. The data obtained for wedge-shaped models and for the angles of propagation of weak disturbances in the flow can be

Card 1/2      utilised for evaluating the thermodynamic properties of



24-11-27/31  
Study of the physical processes inside a shock tube by means of high speed photography.

the investigated gases. Two plates are included containing 23 exposures each of the flow around a semi-wedge and around a symmetrical wedge. The measured speed of the shock wave near to the observation point and the density ratios in the shock can be utilised for determining the real dissociation energy of the gas. Finally, the  $c_p/c_v$  ratio can also be calculated.

There are 5 figures and 5 references, two of which are Slavic.

SUBMITTED: July 9, 1957.

AVAILABLE: Library of Congress.

Card 2/2

VASIL'YEV, L.A.; TARANTOV, Ye.A.

Effective light pulse duration. Usp.nauch.fot. 6:113-115 '59.

(MIRA 13:6)

(Electric discharge lighting)

(Motion-picture photography--High speed)

23(3,5)

SOV/77-4-4-9/19

AUTHOR: Tarantov, Ye.A.

TITLE: On Rational Selection of High Speed Photography Schemes

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 4, pp 296-297 (USSR)

ABSTRACT: The author presents a calculation for a filming scheme for high speed photography. The period for the change of frame:  $\Delta T = \frac{1}{W}$ . Then the resolving time of the

camera,  $T = \frac{1}{W}$  can be taken as  $T = t_{\text{eff}} + \Delta T$  sec;

$t_{\text{eff}}$  is the effective time of exposure of every frame.

Then is  $\rho\gamma = \frac{W}{W t_{\text{eff}} + 1}$ . The maximum value for

$\rho\gamma$  at given  $W$  will be  $\rho\gamma_{\text{max}} = \lim_{t_{\text{eff}} \rightarrow 0} \rho\gamma = W$ . For an ex-

ample the high speed cameras type FP-22 and SSYS-1 were taken. For camera FP-22, where  $W_{\text{max}} = 10^7$

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On Rational Selection of High Speed Photography Schemes

frames/sec, and  $t_{eff} = 8 \cdot 10^{-6}$  sec [Refs 5, 6], we get  
 $\rho T = 5.56 \cdot 10^4 \text{ sec}^{-1}$ ,  $w_{pr} = 1.11 \cdot 10^5$  frames/sec.  
There are 7 Soviet references.

SUBMITTED: June 27, 1958

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TARANTOV, Ye.A.

Accuracy of measurements made with high-speed motion-picture  
photography methods. Zhur.nauch.i prikl.fot.i kin. 5 no.1:  
44-47 Ja-F '60. (MIRA 13:5)  
(Motion-picture photography, High-speed)  
(Photogrammetry)

TARANTOV, Ye.A.; TSVETAYEV, Yu.A.

Exposure time for high-speed cameras with optical compensation  
of prisms. Zhur.nauch.i prikl.fot.i kin. 5 no.4:280-283  
J1-Ag '60. (MIRA 13:8)  
(Photography, High-speed--Exposure)

TARANTOV, Ye.A.

Design of high-speed motion-picture cameras with continuous  
reflex image scanning. Usp.nauch.fot. 9:48-53 '64.  
(MIRA 18:11)

L 22334-66	EXT(1)/ENP(m)/EWA(d)/EWA(h)/EWA(1)	WW
ACC NR: AP6013206	SOURCE CODE: UR/0421/66/000/002/0108/0114	
AUTHOR: <u>Bogoslovskiy, K. Ye. (Moscow); Kireyeva, N. I. (Moscow); Makarevich, G. A. (Moscow); Tsvetayev, Yu. A. (Moscow); Shimarev, S. K. (Moscow); Tarantov, Ye. A. (Moscow)</u>		
ORG: none		
TITLE: Investigation of unsteady flows past models in an electromagnetic shock tube		
SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 2, 1966, 108-114		
TOPIC TAGS: experiment aerodynamics, electromagnetic shock tube, strong shock wave, detached shock wave, shock wave reflection, supersonic flow		
ABSTRACT: An experimental investigation of unsteady flows moving behind strong shock waves produced by electric discharges past models of various shape was carried out in an electromagnetic shock tube. The purpose of this study was to determine the time of flow transition from an unsteady to a steady state in the stagnation-point region and to check the theoretical data on flow parameters behind strong shock waves. The electromagnetic shock tube, experimental set-up, instrumentation, and test procedure are described. The results obtained in an electric discharge shock tube with wave velocity of the order of 8000 m/sec show that: 1) the obtained dependence of the nondimensional value of the relative shock wave detachment on bluntness as a function of nondimensional time makes it possible to determine the time of the estab-		
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I 22334-66

ACC NR: AP6013206

lishment of the flow near the stagnation point of spheres and cylinders in flows behind strong shock waves; 2) the experimental values of velocity and pressure behind reflected shock waves from the end plate of a shock tube are in satisfactory agreement with theoretical computations, taking account of dissociation and ionization; 3) the values of the relative, steady shock-wave detachment from the stagnation point of spheres and cylinders with flat bluntness in axial flows agree well with theoretical data obtained by others. Orig. art. has: 9 figures. (AB)

SUB CODE: 20/ SUBM DATE: 23Apr65/ ORIG REF: 006/ OTH REF: 002/ ATD PRESS:

4242

Card 2/2dda

18 (7)

AUTHORS:

Tarantova, A. S., Solov'yeva, G. G.,  
Pevzner, L. M.

SOV/32-25-9-23/53

TITLE:

Methods for the Metallographic Analysis of Stainless Steels of  
the Transition-type

PERIODICAL:

Zavodskaya laboratoriya, 1959, Vol 25, Nr 9, pp 1089-1091 (USSR)

ABSTRACT:

During recent years the transition-type stainless steel of  
the austenite-martensite class (BAM) (EI904, EI925 grades and  
others) have found wide application. The basic structure of  
these steels is austenitic, sometimes with fairly large  
quantities of martensite, all steels of this sort (except  
EI904) containing 5-20% of  $\delta$ -ferrite. As these steels differ  
from the standard types of austenite steels (such as steel  
Kh18N9 etc) in having a lower stability of the austenite,  
electropolishing must be employed for obtaining ground-metal  
surfaces. Various electrolytes were tried out (Ref 1), and on  
the basis of the results obtained a method for the make of  
ground sections was developed. The following electrolyte is  
recommended: 55 g of citric acid, 9.1 ml of sulphuric acid  
(1.84), 25 ml of distilled water. Temperature of the electrolyte:  
80-90°, current density: 1.0-1.5 A/cm<sup>2</sup>, duration: 3-5 minutes.

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Methods for the Metallographic Analysis of Stainless  
Steels of the Transition-type

SOV/32-25-2-23/53

A layer 0.05 mm thick is thereby removed. Stainless steel Kh18N9T is used as a cathode. The main structure of (BAM)-steels (austenite, martensite, carbides, and  $\delta$ -ferrite) can be made visible by anodic etching in 10% aqueous oxalic acid at room temperature and a current density of 0.5-0.8 a/cm<sup>2</sup> for a period of 45-120 sec. Some examples of differently treated (BAM)-steels are given with corresponding structure plottings. The occurrence of an increased amount of martensite in the surface layer of the ground-metal sections which could be observed in several cases is explained by the hypothesis of Ya. M. Golovchiner and O. P. Maslennikova, i.e. that the energy conditions for the formation of martensite are more favorable on the surface than in the interior of the metal. To make  $\delta$ -ferrite visible, etching in a hot solution of 10 g KOH + 10 g K<sub>3</sub>Fe(CN)<sub>6</sub> + 100 ml H<sub>2</sub>O for 5-10 min is recommended. To make  $\delta$ -ferrite visible, the method of magnetic metallography can also be used (Ref 2). There are 4 figures and 3 references, 2 of which are Soviet.

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ACCESSION NR: AP4037065

S/0129/64/000/005/0021/0028

AUTHOR: Drozdovskiy, B. A.; Pevzner, L. M.; Tarantova, A. S.;  
Fridman, Ya. B.; Kishkin, S. T.

TITLE: Effect of carbon content on the tensile strength of structural  
steel sheets

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov,  
no. 5, 1964, 21-28

TOPIC TAGS: high strength steel, superstrength steel, medium alloy.  
steel, VKS-1 steel, solid fuel rocket, rocket case, rocket case  
material, steel notch sensitivity

ABSTRACT: The effects of carbon content, melting conditions, and heat  
treatment conditions (primarily tempering temperature) on the strength  
and ductility (in conventional tensile tests and under biaxial ten-  
sion), and notch sensitivity of two superstrength steels VKS-1 and  
[AISI]4137-Co are investigated. Four grades of VKS-1 (0.30, 0.39,  
0.45, or 0.53% carbon; 0.89% manganese; 1.2% silicon; 1.87% chromi-  
um; 0.72% nickel; 0.49% molybdenum; .05% vanadium; 0.011% sulfur; and 0.008%  
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ACCESSION NR: AP4037065

phosphorus) were melted in an open atmosphere induction furnace. The 4137-Co (0.40% carbon, 0.84% manganese, 1.02% silicon, 1.32% chromium, 0.36% molybdenum, 0.19% vanadium, and 1.1% cobalt) was melted either in an open atmosphere induction furnace or in a consumable electrode vacuum arc furnace. Both steels were rolled into sheets 1 mm (VKS-1) or 15 mm (4137-Co) thick. Special care was taken to prevent surface decarburization. Tests revealed that tensile and yield strength of VKS-1 steel increased steadily with increased carbon content up to 0.45%. Steel with 0.45% carbon tempered at 150C has a tensile strength of 240—245 kg/mm<sup>2</sup> but low ductility and a high notch sensitivity. When tempered at 220C the steel had a tensile strength of 220—230 kg/mm<sup>2</sup>, yield strength of 180 kg/mm<sup>2</sup>, and elongation 6.5%. Further increase of carbon content brings about premature brittle failures. Elongation remains almost unaffected by increase of carbon content from 0.30 to 0.45% but notch sensitivity increases very sharply. Under conditions of biaxial tension the strength of VKS-1 increased with higher carbon content only up to 0.39%. With 0.30—0.39% carbon the fracture is ductile and the strength is higher than that in uniaxial tension. As the carbon content is increased to 0.45% the fracture becomes brittle, the

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ACCESSION NR: AP4037065

strength drops and goes below the level noted in uniaxial tension. Generally, the maxima on the strength-carbon content or strength-tempering temperature curves for biaxial tension do not coincide with those for uniaxial tension but occur at carbon contents and tempering temperature at which the strength in uniaxial tension amounts to about 200 kg/mm<sup>2</sup>. The behavior of 4137-Co steel followed a similar pattern. It was found, however, that vacuum arc melting improved ductility, especially in biaxial tension, and lowered notch sensitivity. No brittle failures were observed even at tempering temperature as low as 150C. No correlation between the strength in biaxial tension and any characteristics in uniaxial tension was found in either steel. It is concluded that the problem of improvement of structural strength is closely related to the prevention of brittle fracture at higher uniaxial strength. This can be achieved by complex alloying with a minimum segregation of components; improved metallurgical processes ensuring higher purity of metal; control of solidification processes to prevent microsegregation and improve the strength of interdendritic boundaries; and finally by thermomechanical treatment with a maximum grain refinement.

- Cord 3/4

ACCESSION NR: AP4037065

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 05Jun64

ENCL: 00

SUB CODE: MM

NO REF SOV: 004

OTHER: 004

Card 4/4

TARANTOVA, G.D.

Use of the optical method in studying the propagation velocity  
of ultrasonic waves along the saturation line in the mixture  
benzene - methyl alcohol. Prim. ul'traakust. k issl. veshch.  
no.15:97-115 '61. (MIRA 16:8)

(Liquids--Acoustic properties)  
(Optical measurements)



TARANTOVA, G.

"The velocity of sound in binary mixtures in the crystal region.

Paper presented at Fourth Intl. Congress on Acoustics  
Copenhagen, 21-28 Aug 1962

Moscow Pedagogical Institute

TARANTOVA, G.D.

Calculation of the sound velocities along the saturation line in  
the binary mixture benzene - methyl alcohol. Prim.ul'traakust.k  
issl.veshch. no.16:139-146 '62. (MIRA 16:4)  
(Sound—Speed) (Liquids—Acoustic properties)

TARANTOVA, G.D.; NOZDREV, V.F.

Law of corresponding states as applied to binary liquid mixtures.  
Prim.ul'traakust.k issl.veshch. no.16:147-154 '62.

(MIRA 16:4)

(Sound—Speed)

(Liquids—Acoustic properties)

ACCESSION NR: AR4014762

S/0058/63/000/012/E007/E007

SOURCE: RZh. Fizika, Abs. 12E64

AUTHOR: Tarantova, G. D.; Nozdrev, V. F.

TITLE: Concerning the linear "diameter" of the velocity of ultrasound and the wave resistance in the critical region of a mixture of benzene and methyl alcohol

CITED SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vy\*p. 17. M., 1963, 271-276

TOPIC TAGS: benzene, methyl alcohol, benzene methyl alcohol mixture, ultrasonics, velocity of ultrasound, linear diameter, wave resistance

TRANSLATION: It is established on the basis of an analysis of the previously published experimental data on the velocity of ultra-

Card 1/2

ACCESSION NR: AR4014762

sound in a benzene methyl alcohol mixture that the law of linear diameter for the ultrasound velocity is satisfied in an interval  $\sim 20^\circ$  about the critical point, while the law of linear diameter for the wave resistance is satisfied in an interval  $\sim 15^\circ$ .

DATE ACQ: 24Jan64

SUB CODE: PH

ENCL: 00

Card 2/2

GONCHAROV, A.M.; TARANTOVICH, A.S.

Memory system of the GIFTI machine. Izv.vys.ucheb.zav.; radiofiz.  
1 no.2:156-168 '58. (MIRA 11:11)

1. Issledovatel'skiy fiziko-tekhnicheskiy intitut pri Gor'kovskom  
universitete.

(Electronic calculating machines)

ALEKSEYEV, A.S., kand.fiz.-matem.nauk; MIRONOV, V.A., inzh.; TSARNTOVICH,  
A.S., inzh.

System of automatic addressing and counting on a suspended pusher-  
type conveyer. Mekh. i avtom.proizv. 15 no.12:47-52 D '61.  
(MIRA 14:12)

(Conveying machinery) (Electric instruments)

9,7140

AUTHORS:  
TITLE:

36968  
S/141/62/005/001/017/024  
E140/E435  
Goncharov, A.M., Tarantovich, A.S.  
Transistor switching circuits for magnetic drum  
memory heads

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy.  
Radiofizika, v.5, no.1, 1962, 165-17

TEXT: The authors apply load-sharing matrices to the problem of read-write head selection on a magnetic drum. After a brief review of the principles a system for 32 tracks is described. No quantitative data are given on perturbations in unselected heads, it being merely said that the circuit "ensures the absence of perturbations in unselected heads". As is the case with load-sharing matrices in selection of core memories, failure of one or two drivers does not derange the selection of the desired head "while the noise in the other channels is insufficient to yield any appreciable signal". There are 5 figures.

Card 1/2



Transistor switching circuits ...

S/141/62/005/001/017/024  
E140/E435

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tekhnicheskiy  
institut pri Gor'kovskom universitete  
(Physicotechnical Scientific Research Institute  
at Gor'kiy University)

SUBMITTED: May 19, 1961

Card 2/2

L 00374-66 ENT(d)/ESD-2/EMP(1) IJP(c) BE/GG  
 UR/0284/65/000/005/0007/0007  
 621:65.011.56  
 2

SOURCE: Ref. zh. Voprosy tekhnicheskogo progressa i organizatsii proizvodstva v mashinostroyeni. Otd. vyp., Abs. 5.35.63

AUTHOR: Breydo, M. D.; Goncharov, A. M.; Zheglava, N. V.; Zarakaya, G. D.;  
 Kotelnikov, I. V.; Moskhina, T. V.; Taranovich, A. S.

TITLE: TEVM digital computer

CITED SOURCE: Tr. po vopr. primeneniya elektron. vychisl. mashin v nar. kh-vu.  
 Gor'kiy, 1964, 171-173

TOPIC TAGS: digital computer, triple address system, computer design, computer performance range / TEVM computer, TEVM digital computer

TRANSLATION: The TEVM digital computer was designed for calculations used in planning production technology, including the process and routing of flowsheets based on pre-evolved algorithms. It is characterized by a requirement for storage of a number of element symbols in its memory system. It represents a triple address unit and operates on a system with a comma fixed after 10 digits. The total number of digits in a term is 40 (one number or one command). The operation code is expressed by 6 digits, another 6 digits are used

L 00374-66  
ACCESSION NR: AR5013945

for recording special instructions and the remaining digits are divided between three addresses. The unit is equipped with four memory systems: 1) a magnetic operating memory, capacity 512 terms, rotation period 6 msec; 2) an intermediate memory on a magnetic drum, capacity 1024 terms, average rotation period 10 msec; 3) permanent memory on a magnetic drum, capable of data readout only, capacity 2048 terms, average rotation period 10 msec; 4) magnetic tape with a capacity of 100,000 terms. The computer operates on a frequency of 35 kc, power consumption is 3 kw, output rate 20 terms/sec. A total of 39 commands can be performed; the unit operates at an average speed of 1500 operations per second. The unit employs semiconductors (4000 triodes), an integrator in the form of a trigger register with a continuous carry and without provision for shifts and a data input system either from a manual keyboard or via a tape reading photinput system. The unit occupies 60 m<sup>3</sup>. Bbl. with 7 titles, 1 illustration. N. S.

SUB CODE: DP

ENCL: 00

Card <sup>RF</sup> 2/2

1. 2610-66 INT(4)/EXP(1) IJP(e) BB/GG  
ACC NR: AR5014365 SOURCE CODE: UR/0271/65/000/005/B057/B058

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.  
Svodnyy tom, Abs. 5B422

AUTHOR: Breydo, M. D.; Goncharov, A. M.; Zhaglova, N. V.;  
Zarnitsyn, G. D.; Kotelnikov, I. V.; Moshkina, T. V.; Tarantovich, A. S.

TITLE: TEVM digital computer

CITED SOURCE: Tr. po vopr. primeneniya elektron. vychisl. mashin v nar.  
kh-v. Gor'kiy, 1964, 171-173

TOPIC TAGS: digital computer, industrial digital computer

TRANSLATION: The TEVM digital computer is intended for planning operation and route flowcharts on the basis of developed algorithms and for other functions connected with processing. The necessity of storing the characteristics of the product is a special feature of the machine; the volume of this information is rather large. The TEVM machine has three addresses and operates on a fixed-

UDC: 681.142.343

Card 1/2

1 8610-66  
ACC NR: AR5014365

after-18-digit-point system. There are 48 digits in a word (one number or one instruction). An operation code takes 6 digits. Special routine also takes 6 digits; the balance is divided among the three addressees. The computer has 4 types of storage: (1) an internal magnetic storage for 512 words with an access time of 6 microsec; (2) an intermediate magnetic-drum storage for 1024 words with an average access time of 10 millisecc; (3) a nonvolatile magnetic-drum storage for information readout with a capacity of 2048 words and an average access time of 10 millisecc; (4) a magnetic tape of 100 000-word capacity. The working frequency of the computer is 25 kc; the synchronisation depends on the magnetic drum. A total of 39 instructions can be carried out, and the average speed is 1500 operations per sec. The adder is of the trigger-register type with a high-speed carry, no shift. Data photo input reads from a telegraph tape; manual keyboard input is also provided. A 20-number-per-sec output uses a printer. The computer comprises 4000 transistors and takes 3 kw. It occupies an area of 15 m<sup>2</sup>. Bib. 7, fig. 1.

SUB CODE: 09

Card 2/2 jrn

TARANTOVICH, T.M.

25955

S/141/61/004/001/015/022  
E033/Z435

27.4000 4112,3212

AUTHORS: Tsatlin, M.L., Gorokhov, Yu.S., Matusova, A.P.,  
Mel'nikova, V.A., Tarantovich, T.M. and Shabashov, V.M.

TITLE: An apparatus for registering and diagnosing disorders  
of the rhythmic function of the heart

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika,  
1961, Vol.4, No.1, pp.165-172

TEXT: A description is given of an apparatus for the automatic recording and diagnosis of disorders of the rhythmic function of the heart. The apparatus is a logical device utilizing electronic digital computer elements. The initial data for the apparatus are the lengths of the time intervals between the electrocardiogram peaks (R) indicating the depolarization of the ventricles. The length of these intervals is compared with the mean (normal) length averaged over  $t$  seconds. As a result of the comparison, each interval is assigned one of three letters: "S" (short), "L" (long), "N" (normal). The changeover occurs at  $\pm 25\%$  of the normal interval length. The letters are then assembled into "words". The "words" corresponding to this or that rhythmic disorder (heart block, extra-systoles with, and

Card 1/2

25955  
An apparatus for registering ...

S/141/61/004/001/015/022  
E033/E435

without, compensatory pauses, extra-systoles followed by block, paroxysmal tachycardia) are combined in "diagnoses" recorded automatically by the apparatus. The disorders of the rhythmic function of the heart thus detected may serve for the purposes of diagnosing and studying the influence on the patient's organism of various chemical and physical factors. The block schematic of the apparatus is given and the modus operandi described. The apparatus consists of: 1) the transducer of the bipotentials of the heart muscle; 2) the amplifier; 3) the shaper; 4) the "trigger ring"; 5) the pulse tachometer; 6) two reference pulse generators with electronic pulse length control; 7) the memory; 8) the decoder and 9) the registering apparatus. There are 7 figures and 9 references: 6 Soviet-bloc and 3 non-Soviet-bloc. The reference to an English language publication reads as follows: Electronic Engineering, 31, 268 (1959).

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tekhnicheskiy institut pri Gor'kovskom universitete (The Scientific-Research Physicotechnical Institute, Gorkiy University)

SUBMITTED: September 6, 1960  
Card 2/2

L 61926-65 EWT(1)/T/EWA(h) Pz-6/Peb IJP(c) UR/0141/65/008/002/0392/0399  
AT 539.293.011.4 21  
ACCESSION NR: AP5014510 2.  
B

AUTHOR: Postnikov, L. V.; Tarantovich, T. M.

TITLE: Contribution to the theory of electron-hole junctions 21

SOURCE: IVUZ. Radiofizika, v. 8, no. 2, 1965, 392-399

TOPIC TAGS: np junction, rectification theory, junction equation, current voltage characteristic, operator equation

ABSTRACT: The purpose of the investigation was to find an approximate solution for the equations of an n-p junction for the case when the diffusion length is much larger than the Debye radius, and when the deviations of the carrier densities from their equilibrium values are quite small. Under these assumptions, the authors obtain, using the small-parameter method, an approximate solution of the system of partial differential equations for the p-n junction, and an operator equation connecting the current through the junction with the voltage applied to it. Both slow and fast variations of the parameters are considered. In the case of sufficiently low frequencies, the operator equation reduces to an ordinary nonlinear differential

Card 1/2



L 61926-65

ACCESSION NR: AP5014510

equation. It is pointed out in the conclusion that the equivalent circuit corresponding to the solution shows that the charging capacitance of the junction operates in parallel with the nonlinear active resistance and diffusion capacitance, something hitherto assumed in various approximations without sufficient justification. Orig. art. has: 14 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tekhnicheskii institut pri Gor'kovskom universitete (Scientific Research Physicotechnical Institute at the Gor'kiy university)

SUBMITTED: 18 May 64

ENCL: 00

SUB CODE: EC

NR REF SOV: 009

OTHER: 001

Card 2/2 *jk*

L 61926-65 EWT(1)/T/EWA(h) Pz-6/Peb IJP(c)

UR/0141/65/008/002/0392/0399  
539.293.011.4

AT  
ACCESSION NR: AP5014510

AUTHOR: Postnikov, L. V.; Tarantovich, T. M.

TITLE: Contribution to the theory of electron-hole junctions

SOURCE: IVUZ. Radiofizika, v. 8, no. 2, 1965, 392-399

TOPIC TAGS: np junction, rectification theory, junction equation, current voltage characteristic, operator equation

ABSTRACT: The purpose of the investigation was to find an approximate solution for the equations of an n-p junction for the case when the diffusion length is much larger than the Debye radius, and when the deviations of the carrier densities from their equilibrium values are quite small. Under these assumptions, the authors obtain, using the small-parameter method, an approximate solution of the system of partial differential equations for the p-n junction, and an operator equation connecting the current through the junction with the voltage applied to it. Both slow and fast variations of the parameters are considered. In the case of sufficiently low frequencies, the operator equation reduces to an ordinary nonlinear differential

Card 1/2

L 61926-65  
ACCESSION NR: AP5014510

equation. It is pointed out in the conclusion that the equivalent circuit corresponding to the solution shows that the charging capacitance of the junction operates in parallel with the nonlinear active resistance and diffusion capacitance, something hitherto assumed in various approximations without sufficient justification. Orig. art. has: 14 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tekhnicheskiy institut pri Gor'kovskom universitete (Scientific Research Physicotechnical Institute at the Gor'kiy university)

SUBMITTED: 18 May 64

ENCL: 00

SUB CODE: EC

NR REF SOV: 009

OTHER: 001

Card 2/2 *jk*

TARANOVSKIY, S.V., doktor tekhn. nauk, prof., red.; POPOV, S.A.,  
kand. tekhn. nauk, nauchnyy red.; BEGAK, B.A., red. izd-va;  
IGNAT'YEV, V.A., tekhn. red.; MOCHALINA, Z.S., tekhn. red.

[Structural elements made of aluminum alloys] Stroitel'nye konstruksii iz aluminievykh splavov. Pod obshchei red. S.V. Taranovskogo. Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1962. 337 p. (MIRA 15:5)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut stroitel'nykh konstruksiy.  
(Aluminum alloys) (Building materials)

TARANTOWICZ, W.

POLAND / Organic Chemistry. Synthesis.

G

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23268

Author : Urbanski, T.; Tarantowicz, W.

Inst : Academy of Sciences, Poland

Title : On the Preparation and Some Properties of Butyne-2-Diol-1,4-Dinitrate.

Orig Pub: Bull. Acad. polon. sci. Ser. sci. chim., geol. et geogr., 1958, 6, No 5, 289-292, XXIII.

Abstract:  $\text{NO}_2\text{OCH}_2\text{C CCH}_2\text{ONO}_2$  (II) was synthesized by nitrating  $\text{OHCH}_2\text{C CCH}_2\text{OH}$  (I) and converted into I acetate (III). 20 g of I is added to 83 ml of the mixture (2 : 3) of  $\text{HNO}_3$  ( $d = 1.50$ ) and concentrated  $\text{H}_2\text{SO}_4$  at  $18-22^\circ$ ; 20 min. later it is cooled to  $5^\circ$  and poured into 750 g of ice, and II is extracted with ether, yield 70-75%,  $n_{\text{D}}^{25} = 1.4732$ ,  $d_{20} = 1.408$ . 6 g of

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POLAND / Organic Chemistry. Synthesis.

G

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23268

Abstract: Zn dust is added to 2 g of II in 25 ml of  $(\text{CH}_3\text{CO})_2\text{O}$  in the duration of 45-60 min. letting dry HCl to pass through, all is poured out on ice, and III is obtained, melt. p.  $30^\circ$  (from ether). II causes a strong headache, and it explodes if stricken or if it gets on a hot surface ( $245-380^\circ$ ); as far as the force of explosion is concerned, III does not differ from nitrates containing the same relative amount of  $\text{O}_2$ . -- V. Tynyankina

Card 2/2

621

STEBENEV, F., Geroy Sovetskogo Soyuz; TARANTSEV, P., Geroy Sovetskogo Soyuz  
ZHIGUTOV, O., zasluzhennyy master sporta SSSR; SEREBRYANNY, L., sud'ya  
vsesoyuznoy kategorii po strelkovomu sportu.

Devote more attention to rifle shooting. Voen. znan. 25 no.1:16  
Ja '49. (MIRA 12:12)

(Rifle practice)

L 11262-66 EWT(d)/EWT(l)/EWT(m)/EEC(k)-2/EWP(v)/EWP(k)/EWP(h)/EWP(l) JD  
ACC NR: AP5028495 SOURCE CODE: UR/0286/65/000/020/0069/0069

INVENTOR: Ukhorskiy, A. G.; Tarantseva, M. G.

ORG: none

TITLE: Device for measuring large diameters. <sup>gm</sup> Class 42, No. 175666 [announced by Organization of the State Committee of Defense Technology SSSR (Organizatsiya gosudarstvennogo komiteta po oboronoy tekhnike SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 69

TOPIC TAGS: ~~part, round part, part diameter, large diameter, diameter measurement,~~  
measuring *device apparatus, measuring instrument*

ABSTRACT: This Author Certificate introduces a device for measuring large diameters. The device contains a roller which is rolled along the perimeter during the measurement, and a counter which records the roller revolutions. To improve the reliability of measurements in low-rigidity thin-wall objects, the roller and counter are mounted on a portable base which (see Fig. 1.) has rest 6 for the edge of the inspected

Card 1/2

UDC: 531.717.11



E 11262-66

ACC NR: AP5028495

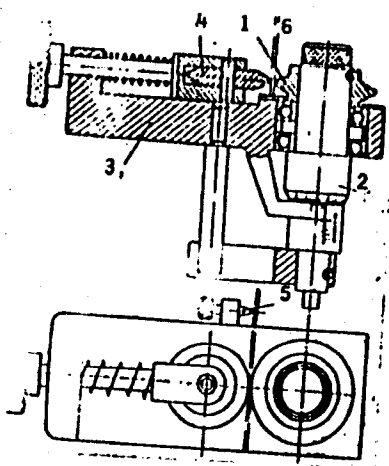


Fig. 1. Device for measuring large diameters

- 1 -- Measuring roller; 2 -- counter;
- 3 -- portable base; 4 -- auxiliary roller;
- 5 -- positioning rest; 6 -- edge rest.

article, positioning support 5, and auxiliary roller 4, which ensures a close contact between roller 1 and the measured object by means of a spring. Orig. art. has: 1 figure. [DV]

SUB CODE: 13/ SUBM DATE: 03Sep 64/ ATD PRESS: 4178

Cord 2/2

TARANTSOV, A.

Television

Accomplishments of Russian Scientists in creating and developing television. Radio No. 5 , 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

1. TARANTSOV, A.
2. USSR (600)
4. Cathode Ray Tubes
7. "Superortikon" television transmission tube is a Soviet invention, Radio, No. 11, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

TAMANTSOV, A.

Photoelectricity

Sixty-five years since the discovery of the photoelectric effect. Radio No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Encl.

USSR/Electronics - Television  
Amplifiers

May 53

TARANTSOV, A.

"Anti-Noise Correction of Amplifiers and the ~~Marconi~~ Latest Act of Plagiarism  
by the Marconi Firm," A. Tarantsov

Radio, No 5, pp 49-54

Claims that a method for suppression of noise in <sup>TV</sup> television amplifiers ~~are~~  
"proposed" by a certain James of the Marconi firm in 1952 and much publi-  
cized in English and French journals ~~it~~ was simply copied from a 1941  
paper by G. V. Braude on a "method for complex anti-noise correction".

TARANTSOV, A.

The most important problem of modern television. Radio no. 3:20-29 S '53.  
(~~para~~ 6:3)

(Television--Transmitters and transmission)

TARANTSOV, A.

Battelle Technical Review  
July, 1954  
Electronics

9608\* Telephotography. (Russian.) V. Kovalenkov and A. Tarantsov. *Radio*, 1953, no. 11, Nov., p. 17-21. Soviet telephotographic transmission apparatus. Means of recording and synchronizing. Frequency band. Diagrams, photograph.

4/8/54

**TARANTSOV, A.**

**From the history of the development of means of long distance  
communication. Radio no.12:21-23 D '53. (MLA 6:12)  
(Telecommunication)**



TARANTSOV, A.

Valentin Ivanovich Kovalenkov. Radio no.4:15 Ap '54. (MLRA 7:4)  
(Kovalenkov, Valentin Ivanovich, 1884- )

*Tarantsov, A.*

USSR/ Scientists

Card 1/1      Pub. 89 - 2/30

Authors      : Tarantsov, A.

Title        : Great Russian Scientist A. S. Popov, inventor of radio

Periodical   : Radio 1, 3 - 4, Jan 56

Abstract     : An account is given of the scientific work of Aleksandr Stepanovich Popov, educator and author, who is said to have first invented the wireless telegraph, having demonstrated an actual model on May 7, 1895. Illustration.

Institution   : .....

Submitted    : .....

107-57-2-12/56

AUTHOR: Tarantsov, A.

TITLE: Henrich Rudolf Hertz (On the 100th Anniversary of His Birthday)  
(Genrikh Rudol'f Gerts; k stoletiyu so dnya rozhdeniya)

PERIODICAL: Radio, 1957, Nr 2, pp 14-15

ABSTRACT: A short biographical sketch is presented of the German scientist Henrich Rudlof Hertz who was born in Hamburg on February 22, 1857. A succession of the views of Faraday, Maxwell, and Hertz is emphasized, and all three are credited with a purely materialistic approach to the problem. It is claimed that as early as the middle of the 18th century the Russian scientist Mikhail Vasil'yevich Lomonosov "made an assumption that light propagates by an oscillatory motion similar to waves." In 1887 Hertz demonstrated that the electromagnetic field surrounding a current-carrying conductor has the nature of waves, as had been predicted by Maxwell. He developed a straight-line radiating conductor known today as the "Hertz radiator." He tried to prove experimentally the common nature of light and electromagnetic waves. He experimented with waves as short as 60 cm, and in 1888 he published his immortal paper "On the Rays of Electric Force." A Soviet scientist, Glagoleva-Arkad'yeva, is credited with first producing electromagnetic waves, 0.18 to 0.3 mm long, which served to prove the common nature of both types of waves. Hertz' letter to Huber of 1889 is

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107-57-2-12/56

Henrich Rudolf Hertz (On the 100th Anniversary of His Birthday)

cited as proof that Hertz considered the radio telegraph impossible. Aleksandr Stepanovich Popov is mentioned, in this connection, as a discoverer of radio. In 1887, Hertz published his observations about the role of ultraviolet rays in intensifying an electric discharge. A Russian scientist, A.G. Stoletov, is credited as having explained the ultraviolet-ray phenomenon and as having invented a photocell. Hertz died on January 1, 1894, at the age of 37.

There is 1 photograph of Henrich Rudolf Hertz in the article.

AVAILABLE: Library of Congress

Card 2/2

TARANTSOV, A.

107-57-6-23/57

**AUTHOR:** Tarantsov, A.

**TITLE:** Fifty Years of Electronic Television (50 let elektronnomu televideniyu)

**PERIODICAL:** Radio, 1957, Nr 6, p 22 (USSR)

**ABSTRACT:** In 1907, Boris L'vovich Rozing, a Russian scientist, suggested using in television receivers an electron- beam tube which had been invented by Braun, a German scientist, ten years before that time. Rozing was sure that mechanical television would come to an impasse. Rozing obtained patents for his invention in 1907. In subsequent years, he tested 123 amplifiers, trying to amplify photoelectric currents. For many years, his invention was not used in practice because up to 1930, there was no adequate TV camera tube invented. Only after A. N. Konstantinov, a Soviet scientist, invented a storage-type camera tube and after Zworykin (USA), Krusser, Timofeyev, Shmakov (USSR), built practical specimens of such camera tubes did TV enter the road of mass application.

**AVAILABLE:** Library of Congress

Card 1/1

TARANTSOV, A.

Our Soviet sputnik. Radio no.12:3-5 D '57  
(Artificial satellites)

(MIRA 10:11)

6(7)

PHASE I BOOK EXPLOITATION

SOV/3539

Tarantsov, Anatoliy Vladimirovich

Elektricheskaya peredacha izobrazheniy (Electric Transmission of Pictures)  
Moscow, Voenizdat, 1959. 193 p. No. of copies printed not given.

General Ed.: Ye. L. Orlovskiy, Professor: Ed.: A.V. Vrublevskiy, Engineer-  
Lt. Colonel; Tech. Ed.: Ye. N. Sleptsova.

PURPOSE: The book is intended for the general reader.

COVERAGE: The book deals, in popular form, with the basic physical phenomena  
utilized in electrical picture transmission. It also presents the principles  
of operation of television and telephoto systems. No personalities are men-  
tioned. There are 12 references, all Soviet.

TABLE OF CONTENTS:

Introduction

Card ~~1/3~~  
//

3

TARANTSOV, A., polkovnik

Progress of present day electronics. Voen. znani. 35 no.3:8-10 Mr  
'59.

(MIRA 12:7)

(Electronics)



PONOMAREV, A., general-polkovnik inzhenerno-tekhnicheskoy sluzhby;  
 POKROVSKIY, G., prof., doktor tekhnicheskoy sluzhby;  
 KUVAL'DIN, A., dots., kand. tekhnicheskikh nauk inzhener-  
 polkovnik; MOSTOVENKO, V., dots., kand. tekhnicheskikh nauk  
 inzhener-polkovnik; GONCHAROV, M., polkovnik; TARANTSOV, A.,  
 polkovnik; VASIL'YEV, N., polkovnik; GORDEYEV, N., kapitan 1  
 ranga; KOZIN, K., kapitan 1 ranga; ARKHIPOV, M., dots., kand.  
 tekhn. nauk inzhener-podpolkovnik; SEDOV, A., dots., kand.  
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 kand. tekhn. nauk, inzhener-podpolkovnik; PARFENOV, V., kand.  
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 mayor; SUSHKOV, Yu., inzh.-kapitan; ASTASHENKOV, P.T., inzh.-  
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(Rockets (Ordnance)) (Atomic weapons)  
 (Electronics in military engineering)

ORLOVSKIY, Ye.L.; KHALFIN, A.M.; KHAZOV, L.D.; ZAVARIN, G.D.;  
KRUSSEY, B.V.; SHCHELOVANOV, L.N.; TARANTSOV, A.V., red.;  
KUKOLEVA, T.V., red.; STUROV, B.V., tekhn. red.

[Theoretical principles of electrical transmission of images;  
television and phototelegraphy] Teoreticheskie osnovy elektricheskoi peredachi izobrazhenii; televidenie i fototelegrafiia.  
[By] E.L.Orlovskii i dr. Pod obshchei red. A.V.Tarantsova.  
Moskva, Sovetskoe radio. Vols. 1 - 2. 1962. (MIRA 15:10)  
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TARANTSOVA, M. I.

137-58-1-2104

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 285 (USSR)

AUTHORS: Belyayeva, V. A., Tarantsova, M. I., Glushko, Ye. I.

TITLE: Electrolytic Segregation of Iron from Titanium  
(Elektroliticheskoye otdeleniye zheleza ot titana)

PERIODICAL: Sb. stud. rabot. Rostovsk. un-t, 1957, Nr 3, pp 45-48

ABSTRACT: An experimental verification of the segregation of Fe from Ti by electrolysis, using an Hg cathode at 2.5-3 amp and 5-6 v in 50-55 min time is presented. An artificial mixture of Fe and Ti containing 0.28-32.77 percent Ti was investigated. To determine the Ti in the Fe-Ti, 0.5 g of the latter is dissolved in 20 cc aqua regia, 2-3 drops of HF being added at the end of the period of solution, subsequent to which 20 cc H<sub>2</sub>SO<sub>4</sub> (1:1) is added; evaporation follows until SO<sub>3</sub> vapors appear. The precipitant coming down under these conditions is dissolved in 5 percent H<sub>2</sub>SO<sub>4</sub> and one then proceeds as described above.

Z. G.

1. Iron—Separation    2. Titanium—Separation    3. Electrolysis  
—Applications

Card 1/1

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Rev. igiena microb. epidem., Bucur. no.4:15-22 Oct-Dec 54.

(SILICOSIS

in miners, prev. with wet drilling)

(MINING

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din Romania si Ministerul Agriculturii si Silviculturii) Bucuresti,  
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Uncl.



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Studies on the diffusion of antimony in monocrystalline silicon.  
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chimie Cluj 10 no.2:305-311 '59. (EAI 9:9)

1. Universitatea "V.Babes" - Cluj, Catedra de chimie organica. 2.  
Comitetul de redactie, Studii si cercetari de chimie, Cluj (for  
Tanasescu)

(Steroids) (Cholic acid) (Nitrates)  
(Dehydrocholic acid)

TANACESCU, I., acad. (deceased); GAFEA, Ileana; TARANU, Ruxandra

Photochemical reactions in the series of derivatives o-nitro-benzylidene acetals. Pt. 21. Studia Univ B-B S.Chem 9 no.1: 21-24 '64.

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KOVTUNOVICH SOSHINSKIY, K.S. [Kovtunovych-Soshyns'kyi, K.S.] (Kiyev);  
TARANUKHA, A.I. (Kiyev)

Steady motion of four-phase reducer-type stepping motors.  
Avtomatyka 9 no.6:28-34 '64.

(MIRA 18:1)

L 22135-65 EWT(d)/EWT(1)/EED-2/EWP(1)/EWA(h) Po-4/Pq-4/Pg-4/Pk-4/Peb  
IJP(c) BB/gg

ACCESSION NR: AP5001741

S/0302/64/000/004/0037/0040

AUTHOR: Timofeyev, B. B. (Doctor of technical sciences); Taranukha, A. I.;  
Poritskiy, O. V. (Candidate of technical sciences)

TITLE: High-efficiency broadband modulation magnetic heads ✓ 31 B

SOURCE: Avtomatika i priborostroyeniye, no. 4, 1964, 37-40

TOPIC TAGS: magnetic head, magnetic data writing, magnetic data reading

ABSTRACT: The essential shortcomings of conventional reading heads (low efficiency, output instability, circuit complexity, narrow band) are claimed to have been overcome in a new design (see Enclosure 1). Using the principle of a resonant bridge, the new head has its output coil wound on modulator 2, 3 over the bias windings 5, 6. This arrangement permits reducing the modulated-carrier loss, good matching with the bias oscillator and amplifier, decoupling between the bias and output circuits, and ensures a high efficiency. An output voltage of

Card 1/3

L 22135-65

ACCESSION NR: AP5001741

3—10 v across a 1.5-kohm resistor obtained from a 1-mm track within 0—50 kc is reported. The a-c bias frequency used is 0.2—0.5 Mc. A split-type laminated 80-NKhS permalloy modulator proved far superior to the conventional ferrite type. The design features of a single-track and a 20-track (for 35-mm tape) head are reported. Orig. art. has: 5 figures.

ASSOCIATION: Institut kibernetiki AN UkrSSR (Institute of Cybernetics,  
AN UkrSSR)

SUBMITTED: 00

ENCL: 01

SUB CODE: DP

NO REF SOV: 002

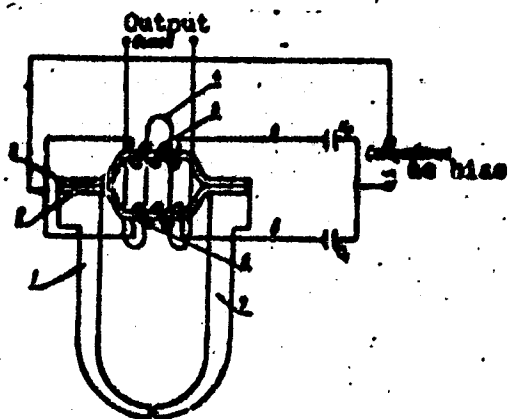
OTHER: 001

Card 2/3

L 22155-65

ACCESSION NR: AP5001741

ENCLOSURE, 01



New magnetic head

Card 3/3



TARANUKHA, M.D.

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TARANUKHA, M.D.

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TARANUKHA, M. D.

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TARANUKHA, M.D.

Effect of nutrition on the fertility and physiological characteristics  
of sugar beet weevils. Nauch.trudy Inst.ent.i fit. AN URSS 7:195-207  
'56. (MIRA 10:3)  
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